

Amendments to the Claims:

Claims 1-65 are pending in this application. Claims 25-58 have been allowed. Claims 4-10 and 13-19 have been indicated as allowable if rewritten in independent form. Claims 1-3, 11, 12 and 21-24 have been rejected. By this Amendment, claims 1-3, 7, 11, 12 and 20-24 have been cancelled. Claims 4, 5, 8, 9, 10, 13, 14, 16, 25, and 57 have been amended. New claims 66-77 have been added. No new matter has been added.

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-3 (CANCELLED): An image display apparatus comprising:

4 (CURRENTLY AMENDED): An image display apparatus according to claim 1,
comprising:

at least one image forming element; and

an illumination optical system for illuminating said image forming element with
light from a light source,

wherein an image is formed through modulation of said light by said image
forming element, and said illumination optical system can vary a light intensity distribution of
said light on said image forming element,

wherein[[:]] said illumination optical system has a secondary light source forming
member for forming a plurality of secondary light sources; and

when said image forming element is illuminated with a plurality of light beams
from said plurality of secondary light sources, projection magnifications of a part or all of said
plurality of light beams to said image forming element are changed so as to make switchable the

relationship of the number of overlapping light beams in a central portion of said image forming element and the number of overlapping light beams in a peripheral portion of said image forming element between different and the same, thereby varying the light intensity distribution in an effective region of said image forming element.

5 (CURRENTLY AMENDED): An image display apparatus according to claim 1,
comprising:

at least one image forming element; and

an illumination optical system for illuminating said image forming element with
light from a light source,

wherein an image is formed through modulation of said light by said image
forming element, and said illumination optical system can vary a light intensity distribution of
said light on said image forming element,

wherein[[:]] said illumination optical system has a secondary light source forming
member for forming a plurality of secondary light sources; and

when said image forming element is illuminated with a plurality of light beams
from said plurality of secondary light sources, the number of overlapping light beams in a central
portion of said image forming element is structured to be larger than the number of overlapping
light beams in a peripheral portion of said image forming element, and projection magnifications
of said plurality of light beams to said image forming element are changed, thereby varying the
light intensity distribution in an effective region of said image forming element.

6 (ORIGINAL): An apparatus according to claim 5, wherein said illumination optical system comprises a light condensing optical element and varies said distribution by moving said light condensing optical element in a direction of an optical axis.

7 (CANCELLED):

8 (CURRENTLY AMENDED): An apparatus according to claim 7 75, wherein said illumination optical system varies said distribution by moving at least a part of said at least one lens array in a direction of an optical axis.

9 (CURRENTLY AMENDED): An apparatus according to claim 7 75, wherein said illumination optical system varies said distribution by moving at least a part of said at least one lens array in a direction perpendicular to an optical axis.

10 (CURRENTLY AMENDED): An apparatus according to claim 7 75, wherein said illumination optical system varies said distribution by rotating at least a part of said at least one lens array.

11-12 (CANCELLED):

13 (CURRENTLY AMENDED): An image display apparatus ~~according to claim 11,~~

comprising:

at least one image forming element; and

an illumination optical system for illuminating said image forming element with light from a light source,

wherein an image is formed through modulation of said light by said image forming element, and said illumination optical system can vary an illumination distribution in an effective region of said image forming element,

wherein~~[[:]]~~ said illumination optical system has a secondary light source forming member for forming a plurality of secondary light sources; and

when said image forming element is illuminated with a plurality of light beams from said plurality of secondary light sources, projection magnifications of a part or all of said plurality of light beams to said image forming element are changed so as to make switchable the relationship of the number of overlapping light beams in a central portion of said image forming element and the number of overlapping light beams in a peripheral portion of said image forming element between different and the same, thereby varying said distribution.

14 (CURRENTLY AMENDED): An image display apparatus ~~according to claim 11,~~

comprising:

at least one image forming element; and

an illumination optical system for illuminating said image forming element with light from a light source,

wherein an image is formed through modulation of said light by said image forming element, and said illumination optical system can vary an illumination distribution in an effective region of said image forming element,

wherein[[:]] said illumination optical system has a secondary light source forming member for forming a plurality of secondary light sources; and

when said image forming element is illuminated with a plurality of light beams from said plurality of secondary light sources, the number of overlapping light beams in a central portion of said image forming element is structured to be larger than the number of overlapping light beams in a peripheral portion of said image forming element, and projection magnifications of said plurality of light beams to said image forming element are changed, thereby varying said distribution.

15 (ORIGINAL): An apparatus according to claim 14, wherein said illumination optical system comprises a light condensing optical element and varies said distribution by moving said light condensing optical element in a direction of an optical axis.

16 (CURRENTLY AMENDED): An image display apparatus ~~according to any one of claims 11, comprising:~~

at least one image forming element; and

an illumination optical system for illuminating said image forming element with light from a light source,

wherein an image is formed through modulation of said light by said image forming element, and said illumination optical system can vary an illumination distribution in an effective region of said image forming element,

wherein said illumination optical system comprises at least one lens array as a secondary light source forming member for forming a plurality of secondary light sources, and varies said distribution by moving at least a part of said at least one lens array.

17 (ORIGINAL): An apparatus according to claim 16, wherein said illumination optical system varies said distribution by moving at least a part of said at least one lens array in a direction of an optical axis.

18 (ORIGINAL): An apparatus according to claim 16, wherein said illumination optical system varies said distribution by moving at least a part of said at least one lens array in a direction perpendicular to an optical axis.

19 (ORIGINAL): An apparatus according to claim 16, wherein said illumination optical system varies said distribution by rotating at least a part of said at least one lens array.

20-24 (CANCELLED):

25 (CURRENTLY AMENDED): An illumination system comprising:

a secondary light source forming member for forming a plurality of secondary light sources ~~from light~~ from a light source, wherein an illumination surface is illuminated with a plurality of light beams from said plurality of secondary light sources, and projection magnifications of a part or all of said plurality of light beams to said illuminated surface are changed, thereby varying an illumination distribution on said illuminated surface.

26 (ORIGINAL): An illumination system according to claim 25, wherein said distribution is varied by switching the relationship of the number of overlapping light beams in a central portion of said illuminated surface and the number of overlapping light beams in a peripheral portion of said illuminated surface between different and the same.

27 (ORIGINAL): An illumination system according to claim 25, wherein the number of overlapping light beams in a central portion of said illuminated surface is structured to be larger than the number of overlapping light beams in a peripheral portion of said illuminated surface, and projection magnifications of said plurality of light beams to said illuminated surface are changed, thereby varying said distribution in an effective region of said illuminated surface.

28 (ORIGINAL): An illumination system according to claim 25, comprising:
at least one lens array as said secondary light source forming member; and
a light condensing optical element, wherein said distribution is varied by moving said light condensing optical element in a direction of an optical axis.

29 (ORIGINAL): An illumination system according to claim 27, comprising:
at least one lens array as said secondary light source forming member; and
a light condensing optical element, wherein said distribution is varied by moving
said light condensing optical element in a direction of an optical axis.

30 (ORIGINAL): An illumination system according to claim 25, comprising:
at least one lens array as said secondary light source forming member; and
a light condensing optical element, wherein said distribution is varied by moving
at least a part of said at least one lens array.

31 (ORIGINAL): An illumination system according to claim 30, wherein said distribution is
varied by moving at least a part of said at least one lens array in a direction of an optical axis.

32 (ORIGINAL): An illumination system according to claim 30, wherein said distribution is
varied by moving at least a part of said at least one lens array in a direction perpendicular to an
optical axis.

33 (ORIGINAL): An illumination system according to claim 30, wherein said distribution is
varied by rotating at least a part of said at least one lens array.

34 (ORIGINAL): An illumination system according to claim 26, comprising:

at least one lens array as said secondary light source forming member; and
a light condensing optical element, wherein said distribution is varied by moving
at least a part of said at least one lens array.

35 (ORIGINAL): An illumination system according to claim 34, wherein said distribution is
varied by moving at least a part of said at least one lens array in a direction of an optical axis.

36 (ORIGINAL): An illumination system according to claim 34, wherein said distribution is
varied by moving at least a part of said at least one lens array in a direction perpendicular to an
optical axis.

37 (ORIGINAL): An illumination system according to claim 34, wherein said distribution is
varied by rotating at least a part of said at least one lens array.

38 (ORIGINAL): An illumination system comprising:
a secondary light source forming member for forming a plurality of secondary
light sources from light from a light source, wherein an illuminated surface is illuminated with a
plurality of light beams from said plurality of secondary light sources, and projection
magnifications of a part or all of said plurality of light beams to said illuminated surface are
changed, thereby varying an illumination distribution in an effective region of said illuminated
surface.

39 (ORIGINAL): An illumination system according to claim 38, wherein said distribution is varied by switching the relationship of the number of overlapping light beams in a central portion of said illuminated surface and the number of overlapping light beams in a peripheral portion of said illuminated surface between different and the same.

40 (ORIGINAL): An illumination system according to claim 38, wherein the number of overlapping light beams in a central portion of said illuminated surface is structured to be larger than the number of overlapping light beams in a peripheral portion of said illuminated surface, and projection magnifications of said plurality of light beams to said illuminated surface are changed, thereby varying said distribution.

41 (ORIGINAL): An illumination system according to claim 38, comprising:
at least one lens array as said secondary light source forming member; and
a light condensing optical element, wherein said distribution is varied by moving said light condensing optical element in a direction of an optical axis.

42 (ORIGINAL): An illumination system according to claim 40, comprising:
at least one lens array as said secondary light source forming member; and
a light condensing optical element, wherein said distribution is varied by moving said light condensing optical element in a direction of an optical axis.

43 (ORIGINAL): An illumination system according to claim 38, comprising:
at least one lens array as said secondary light source forming member; and
a light condensing optical element, wherein said distribution is varied by moving
at least a part of said at least one lens array.

44 (ORIGINAL): An illumination system according to claim 43, wherein said distribution is
varied by moving at least a part of said at least one lens array in a direction of an optical axis.

45 (ORIGINAL): An illumination system according to claim 43, wherein said distribution is
varied by moving at least a part of said at least one lens array in a direction perpendicular to an
optical axis.

46 (ORIGINAL): An illumination system according to claim 43, wherein said distribution is
varied by rotating at least a part of said at least one lens array.

47 (ORIGINAL): An illumination system according to claim 39, comprising:
at least one lens array as said secondary light source forming member; and
a light condensing optical element, wherein said distribution is varied by moving
at least a part of said at least one lens array.

48 (ORIGINAL): An illumination system according to claim 47, wherein said distribution is

varied by moving at least a part of said at least one lens array in a direction of an optical axis.

49 (ORIGINAL): An illumination system according to claim 47, wherein said distribution is varied by moving at least a part of said at least one lens array in a direction perpendicular to an optical axis.

50 (ORIGINAL): An illumination system according to claim 47, wherein said distribution is varied by rotating at least a part of said at least one lens array.

51 (PREVIOUSLY PRESENTED): An image display apparatus comprising:
at least one image forming element; and
an illumination system according to claim 25 for illuminating said at least one image forming element with light from a light source.

52 (ORIGINAL): An apparatus according to claim 51, further comprising:
a projection optical system for projecting an image formed by said image forming element on a projection surface, wherein said apparatus further comprises a plurality of image forming elements and said projection optical system overlappingly projects on said projection surface images formed by said plurality of image forming elements.

53 (ORIGINAL): An apparatus according to claim 51, wherein said plurality of image

forming elements are for red, green, and blue, respectively and said apparatus further comprises a plurality of dichroic mirrors for combining colors from said image forming elements.

54 (ORIGINAL): An apparatus according to claim 51, wherein said plurality of image forming elements are for red, green, and blue, respectively and said apparatus further comprises a plurality of dichroic prisms for combining colors from said image forming elements.

55 (ORIGINAL): An image display system comprising:
an apparatus according to claim 51; and
an image recording apparatus for supplying an image signal to said apparatus.

56 (ORIGINAL): An image display system comprising:
an apparatus according to claim 51; and
a computer for supplying an image signal to said apparatus.

57 (CURRENTLY AMENDED): An apparatus according to claim ~~1~~ 4 further comprising a projection optical system for projecting an image formed by said image forming element on a projection surface, wherein said apparatus has a single image forming element and said projection optical system projects the image formed by said single image forming element on the projection surface.

58 (ORIGINAL): An apparatus according to claim 51 further comprising a projection optical system for projecting an image formed by said image forming element on a projection surface, wherein said apparatus has a single image forming element and said projection optical system projects the image formed by said single image forming element on the projection surface.

59 (PREVIOUSLY PRESENTED): An apparatus according to claim 13, wherein said illumination optical system comprises at least one lens array as a secondary light source forming member for forming a plurality of secondary light sources, and varies said distribution by moving at least a part of said at least one lens array.

60 (PREVIOUSLY PRESENTED): An apparatus according to claim 14, wherein said illumination optical system comprises at least one lens array as a secondary light source forming member for forming a plurality of secondary light sources, and varies said distribution by moving at least a part of said at least one lens array.

61 (PREVIOUSLY PRESENTED): An apparatus according to claim 11, further comprising:
a projection optical system for projecting an image formed by said image forming element on a projection surface, wherein said apparatus includes a plurality of image forming elements, and said projection optical surface overlappingly projects on said projection surface images formed by said plurality of image forming elements.

62 (PREVIOUSLY PRESENTED): An image display system comprising:

an apparatus according to claim 11; and

an image recording apparatus for supplying an image signal to said apparatus

according to claim 11.

63 (PREVIOUSLY PRESENTED): An image display system comprising:

an apparatus according to claim 11; and

a computer for supplying an image signal to said apparatus.

64 (PREVIOUSLY PRESENTED): An image apparatus comprising:

at least one image forming element; and

an illumination system according to claim 38 for illuminating said at least one image forming element with light from a light source.

65 (PREVIOUSLY PRESENTED): An apparatus according to claim 11 further comprising a projection optical system for projecting an image formed by said image forming element on a projection surface, wherein said apparatus has a single image forming element and said projection optical system projects the image formed by said single image forming element on the projection surface.

66 (NEW): An apparatus according to claim 13, further comprising a projection optical system for projecting an image formed by said image forming element on a projection surface, wherein said apparatus has a single image forming element and said projection optical system projects the image formed by said single image forming element on the projection surface.

67 (NEW): An image display apparatus comprising:
at least one image forming element; and
an illumination system according to claim 38 for illuminating said at least one image forming element with light from a light source.

68 (NEW): An image display apparatus comprising:
at least one image forming element; and
an illumination optical system for illuminating said at least one image forming element by light from a light source,
wherein said illumination optical system comprises a lens array including a plurality of lenses arranged along a direction vertical to an optical axis of said illumination optical system,
and wherein a lens in one group of lenses in the plurality of lenses included in the lens array have a focal length different from a lens in the other group of lenses.

69 (NEW): An image display apparatus according to claim 68, comprising a driving mechanism for driving at least one part including said one group of lenses in the lens array toward the optical axis direction of said illuminating optical system.

70 (NEW): An image display apparatus comprising:
at least one image forming element; and
an illumination optical system for illuminating said at least one image forming element by light from a light source, the illumination optical system having a first lenses array divided light from the light source into a plurality of fluxes,
wherein first lenses in one group of first lenses in a plurality of first lenses included in the first lenses array have a focal length different from a lens in the other group of first lenses.

71 (NEW): An image display apparatus according to claim 70, comprising a driving mechanism for driving at least one part including said one group of first lenses in the first lenses array toward an optical axis direction of said illuminating optical system.

72 (NEW): An image display apparatus according to claim 70, comprising:
a second lenses array including a plurality of second lenses at positions respectively corresponding to positions of the plurality of first lenses,

wherein second lenses in one group of second lenses provided at positions respectively corresponding to positions of said one group of first lenses have a focal length different from a lens in the other group of second lenses.

73 (NEW): An image display apparatus according to claim 72, comprising a driving mechanism for driving at least one part including said one group of second lenses in the second lenses array toward an optical axis direction of said illuminating optical system.

74 (NEW): An image display apparatus comprising:
at least one image forming element; and
an illumination optical system for illuminating said at least one image forming element by light from a light source,

wherein said illumination optical system comprises a first lenses array having a plurality of first lenses, for dividing light from the light source into a plurality of fluxes and a second lens array having a plurality of second lenses at positions corresponding to positions of the plurality of first lenses, for receiving light from the first lenses array,

and wherein a projecting magnification onto said at least one image forming element from one part of a light emitting surface in the plurality of first lenses is different from the other part of the light emitting surface in the plurality of first lenses.

75 (NEW): An image display apparatus comprising:

at least one image forming element; and

an illumination optical system for illuminating said image forming element with light from a light source,

wherein an image is formed through modulation of said light by said image forming element, and said illumination optical system can vary a light intensity distribution of said light on said image forming element,

wherein said illumination optical system comprises at least one lens array as a secondary light source forming member for forming a plurality of secondary light sources, and varies said distribution by moving at least a part of said at least one lens array.

76 (NEW): An image display apparatus comprising:

at least one image forming element; and

an illumination optical system for illuminating said image forming element with light from a light source,

wherein an image is formed through modulation of said light by said image forming element, and said illumination optical system can vary a light intensity distribution of said light on said image forming element,

wherein said illumination optical system has a secondary light source forming member for forming a plurality of secondary light sources,

when said image forming element is illuminated with a plurality of light beams from said plurality of secondary light sources, projection magnifications of a part or all of said

plurality of light beams to said image forming element are changed so as to make switchable the relationship of the number of overlapping light beams in a central portion of said image forming element and the number of overlapping light beams in a peripheral portion of said image forming element between different and the same, thereby varying the light intensity distribution in an effective region of said image forming element,

wherein said illumination optical system comprises at least one lens array as a secondary light source forming member for forming a plurality of secondary light sources, and varies said distribution by moving at least a part of said at least one lens array.

77 (NEW): An image display apparatus comprising:
at least one image forming element; and
an illumination optical system for illuminating said image forming element with light from a light source,

wherein an image is formed through modulation of said light by said image forming element, and said illumination optical system can vary a light intensity distribution of said light on said image forming element,

wherein said illumination optical system has a secondary light source forming member for forming a plurality of secondary light sources,

when said image forming element is illuminated with a plurality of light beams from said plurality of secondary light sources, the number of overlapping light beams in a central portion of said image forming element is structured to be larger than the number of overlapping

light beams in a peripheral portion of said image forming element, and projection magnifications of said plurality of light beams to said image forming element are changed, thereby varying the light intensity distribution in an effective region of said image forming element,

wherein said illumination optical system comprises at least one lens array as a secondary light source forming member for forming a plurality of secondary light sources, and varies said distribution by moving at least a part of said at least one lens array.